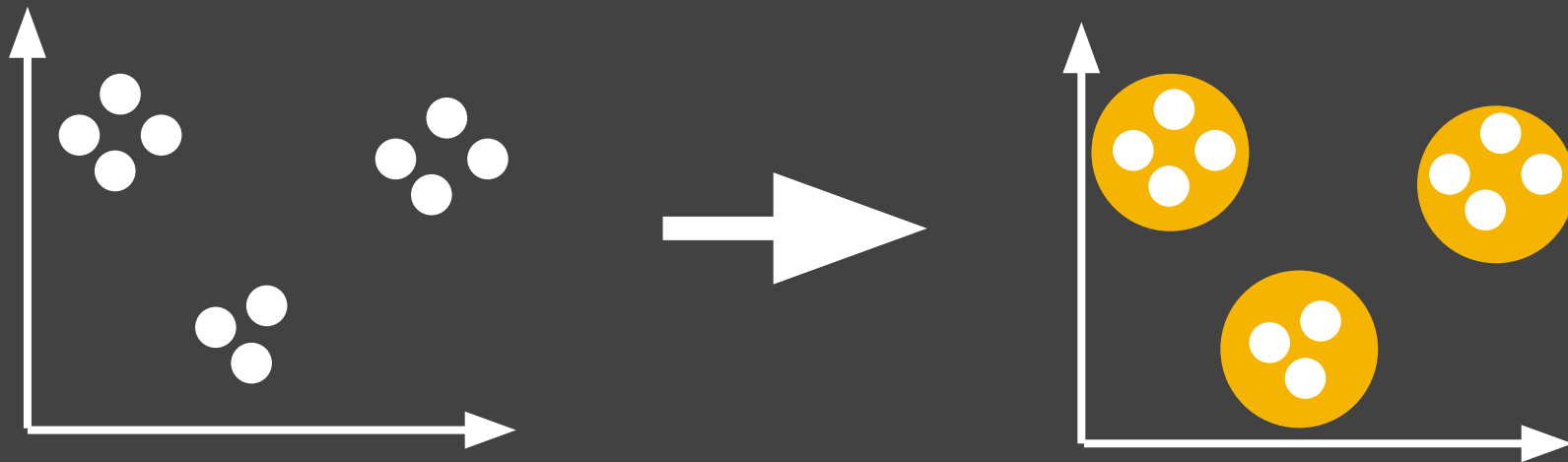


Types of Machine Learning Models



Clustering Models

- Group similar objects



Clustering Models

- Help label data for supervised machine learning
 - Relies on labeled input data to learn a function that can be used on unlabeled data.

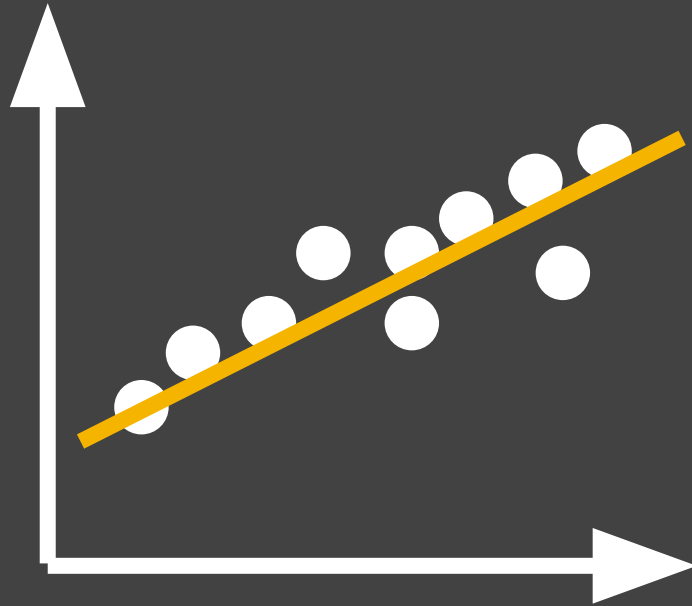
Clustering Algorithms

- K means
- K means++
- K medoids
- Agglomerative clustering DBSCAN

Regression Models

- Output variable can take continuous values
- Example: Predict price

Regression Models



Regression Algorithms

- Linear Regression
- Lasso Regression
- Ridge Regression
- SVM Regression
- Decision Tree Regression

Deep Learning

- Mimics the human brain with neural networks

Deep Learning



Cat



?

Deep Learning Applications

- Computer vision
- Natural Language Processing
- Autonomous vehicles
- Image filtering
- Text generation

Classification Models

- Predict type of object within a number of options

Classification Models



Classification Applications

- Check email for spam
- Check reviews for positive/negative
- Check species of a flower

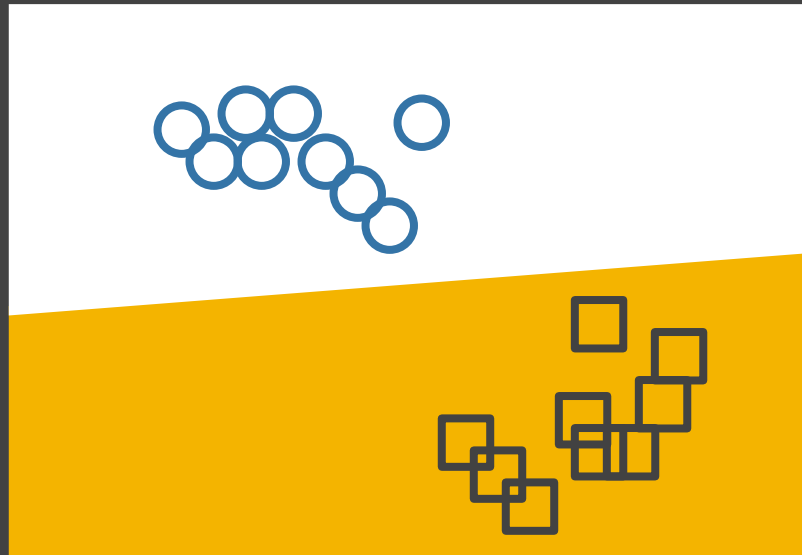
Classification Algorithms

- K-Nearest Neighbors
- Naive Bayes
- Logistic Regression
- SVM
- Decision Tree
- Ensemble

K-Nearest Neighbors

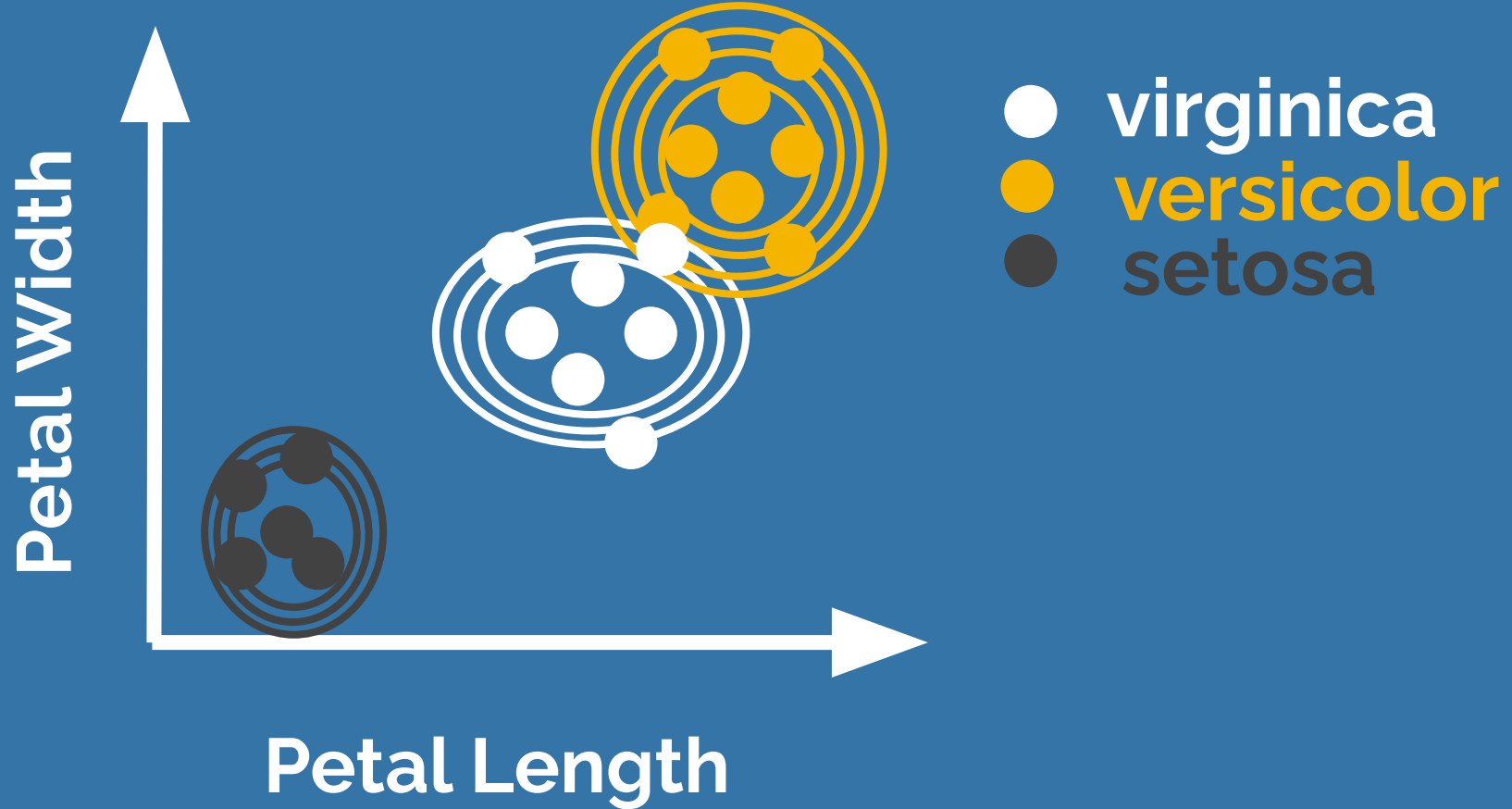
- Assumes that similar things are near to each other.
- Calculates distance between points on a graph identify similar objects

K-Nearest Neighbors



Naive Bayes

- Assumes the presence of a feature in a class is unrelated to other features
- A cat has whiskers, a tail and a nose, but each of these features is independent



Logistic Regression

- Used when the dependent variable (target) is categorical
- Example: Is a review positive or negative
- Example: Is an email spam or not

X_1 →

X_2 →

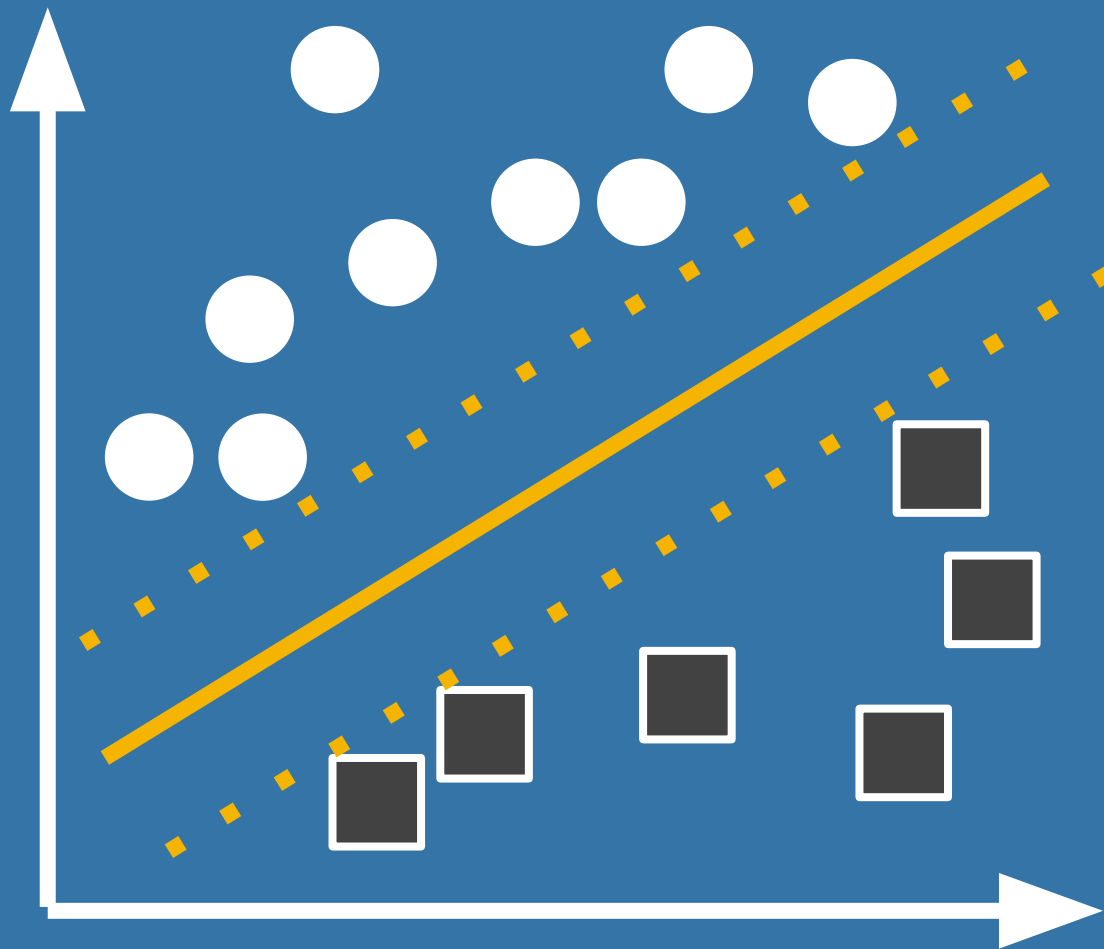
X_3 →

algorithm



Support Vector Machine

- Finds a plane that has the maximum distance between data points of both classes



Types of Machine Learning Models ✓

